

REMARKS

The Office Action indicates that claims 19 and 20 are allowed, and that claims 3 and 6 contain allowable subject matter. The indication of allowable claims and allowable subject matter is acknowledged with appreciation. However, for the following reasons reconsideration and withdrawal of the rejections are respectfully requested.

The Office Action rejects claims 1, 2, 4, 5 and 7-9 under 35 USC § 102(e) over Arrigo et al. (U.S. Patent No. 6,781,570). Because Arrigo fails to disclose or suggest all the features of these claims, the rejection is respectfully traversed.

Arrigo discloses a wireless optical input device such as an optical based computer mouse which can communicate data to a connected PC via a wireless link. Arrigo discloses that it is desirable to configure the wireless mouse so that it can enter multiple different sleep modes to conserve power when the optical mouse is not being used. Arrigo explains that the controller of the optical mouse would monitor movements of the mouse, or user input on a tracking wheel or selection buttons. If the mouse is not being moved and the user is not attempting to operate any of the buttons or the track wheel, the controller would determine that the user is not operating the mouse. If a period of inactivity continues for a predetermined period of time, the controller would cause the optical mouse to enter one or more sleep modes to conserve the use of electrical power.

Claim 1 is directed to a wireless communications device that includes a communication sensitivity checking portion configured to check the sensitivity of at least one communications channel used to communicate with an external access point. Claim 1 recites

that the communication sensitivity checking portion would output a sensitivity signal. Claim 1 further recites a power mode changing portion configured to change a power mode of the wireless communications device between a working mode and at least one sleep mode based on the sensitivity signal output from the communications sensitivity checking portion.

As explained above, the wireless optical mouse disclosed in Arrigo only changes a power mode of the device when it senses that a user is not attempting to use the mouse. Arrigo fails to disclose or suggest that the mouse would check a communications sensitivity of a communications channel used to communicate with an external device. Accordingly, it is respectfully submitted that Arrigo fails to disclose or suggest a wireless communications device as recited in claim 1, which includes a communications sensitivity checking portion. For at least this reason, it is respectfully submitted that claim 1 is allowable.

Claims 2, 4, 5 and 7-9 depend from claim 1 and are allowable for at least the same reasons. In addition, the dependent claims recite additional features which are also not shown or suggested by Arrigo.

For instance, claim 2 recites that the power mode changing portion is configured to change a power mode of the wireless communications device into a working mode if the sensitivity signal indicates that the communications sensitivity is greater than a predefined reference value. Claim 2 further recites that the power mode changing portion is configured to change a power mode of the wireless communications device into a sleep mode if the sensitivity signal indicates that the communications sensitivity is less than a predefined sensitivity value. As noted above, Arrigo fails to disclose or suggest any type of sensitivity checking portion which

would output a sensitivity signal indicating that a communications sensitivity is greater or less than a predefined value. Thus, the Arrigo device necessarily cannot satisfy the features recited in claim 2.

Claim 5 depends from claim 2 and further recites that the power mode changing portion is configured to switch the power mode into a working mode once a predetermined time period elapses after the power mode has been switched to a sleep mode. In the Arrigo wireless optical mouse, the power mode is never changed into a working mode after a predetermined time period elapses after the power mode has been switched to a sleep mode. In fact, the only change that is possible after the expiration of a predetermined time period without activity is for the Arrigo wireless mouse to enter a deeper sleep mode. The only thing that will cause the Arrigo wireless mouse to change from a sleep mode back into a working mode is if the user moves the mouse or inputs data using one of the selection keys or the track wheel. It is respectfully submitted that claim 5 is also allowable for these additional reasons.

In view of the foregoing, withdrawal of the rejection of claims 1, 2, 4, 5 and 7-9 over Arrigo is respectfully requested.

The Office Action also rejects claims 10 and 18 under 35 USC § 103 over Arrigo, in view of Lindskog et al. (U.S. Patent Publication No. 2002/0132603). The rejection is respectfully traversed.

Lindskog discloses various methods for causing a wireless network interface card of a laptop computer to enter into a sleep mode or to transition from a sleep mode back into a working mode. However, Lindskog, like Arrigo, fails to disclose or suggest any checking means

for checking a communications sensitivity of a communications channel. Thus, Lindskog suffers the same deficiencies as Arrigo which were discussed above in connection with claim 1.

Rejected claim 11 depends from claim 1. Because both Lindskog and Arrigo fails to disclose or suggest the communications sensitivity checking portion recited in claim 1, it is respectfully submitted that claim 10 is allowable.

Claim 11 is directed to a wireless LAN module which includes a checking means for checking a communications sensitivity of at least one communications channel. Claim 11 further recites a switching means for switching a power mode of the wireless LAN module to a power down mode if the checking means determines that a communication sensitivity is less than a predefined sensitivity value, and that the switching means is also configured to switch the power mode of the wireless LAN module to a normal mode after a predetermined delay period elapses after the power mode has been set to the power down mode.

As noted above, both Lindskog and Arrigo fail to disclose or suggest a checking means or a switching means as recited in claim 11. Specifically, neither reference discloses or suggests a device which would check a sensitivity of a communications channel. Also, as noted above, Arrigo does not switch from a power down mode to a normal mode after a predetermined delay period elapses after the power mode has been set to the power down mode. For all these reasons, it is respectfully submitted that claim 11 is allowable.

Claims 12-14 depend from claim 11 and are allowable for at least the reasons discussed above. In addition, the dependent claims recited additional features which are also not shown or suggested by Arrigo or Lindskog. For instance, claim 12 recites that the predefined sensitivity

value is approximately 70%. As Arrigo and Lindskog do not disclose checking a sensitivity value, they necessarily fail to disclose determining whether a predefined sensitivity value is greater or less than 70%. Claim 14 also recites features that cannot be satisfied by Arrigo and Lindskog because the references lack any device for checking the sensitivity of a communications channel. It is respectfully submitted that the dependent claims are also allowable for these additional reasons.

Claim 15 recites a power management method for a wireless LAN module. Claim 15 recites setting up a communications channel of a wireless LAN network, checking a communications sensitivity of the set channel, and changing a power mode of the wireless LAN module to a sleep mode if the results of the checking step indicate that the communications sensitivity is less than a predetermined sensitivity value. As noted above, both Arrigo and Lindskog fail to disclose or suggest a method which includes checking a communications sensitivity of a channel, or changing a power mode if the checking step indicates that the communications sensitivity is less than a predefined value. For at least this reason, it is respectfully submitted that claim 15 is also allowable over Arrigo and Lindskog. Claims 16-18 depend from claim 15 and recite additional features which are also not shown or suggested by Arrigo and Lindskog.

In view of the foregoing, withdrawal of the rejection of claims 10-18 over Lindskog and Arrigo is respectfully requested.

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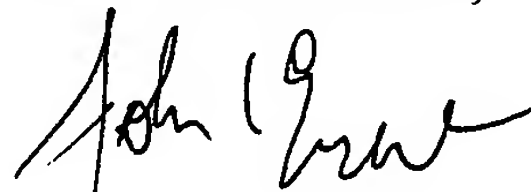
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CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition, the Examiner is invited to contact the undersigned at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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